

Additions to the flora of Kolhapur District¹

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The luxuriant vegetation of Kolhapur district has not received much attention. Mahajan & Divan (1968) and Mahajan & Vaidya (1969) have dealt with the forest resources of Radhanagari and the vegetation of grasslands around Kolhapur respectively. Kulkarni & Mudgal (1971) and Kulkarni & Desai (1972) have revised the family Commelinaceae and Eriocaulaceae respectively of this area. Kulkarni (1971) has reported the occurrence of *Sesamum mulayanum* Nair in this region. *Eriocaulon tuberiferum* Kulkarni et Desai (1972) has been described from Panhala—a fort near Kolhapur. On the basis of data available in the herbarium of the Botanical Survey of India, Western circle, Poona, Singh, Malhotra & Mudaliar (1972) have published an account of the flora of Kolhapur district in which they have enumerated 301 species including Pteridophytes. The aim of the present note is to add to this list whatever information we have gathered on the Angiosperm flora during our six years botanical explorations in different parts of this district. The plants already recorded from this region are excluded from the present list except those where more information is added on the distribution in the district. Cultigens have also been excluded. The account on Cyperaceae will be published at a later date. Necessary changes in the nomenclature of identified taxa have been made. The herbarium specimens are deposited in the

herbarium of Shivaji University, Botany Department, Kolhapur.

MENISPERMACEAE

Tinospora cordifolia (Willd.) Miers. A common climber, Kolhapur, Panhala ; often cultivated (122, 125).

Cocculus hirsutus (Linn.) Diels. In open grassland. Kolhapur, Panhala (135-37).

Cissampelos pereira Linn. A climber in forests or forest edges. Katyayani, Panhala, Gaganbavada (139-43).

NYMPHAEACEAE

Nymphaea stellata Willd. Both red and white flowered forms. Rankala and Shiruli talao, Kolhapur (149).

Nelumbo nucifera Gaertn. Laxmi talao, Kolhapur.

PAPAVERACEAE

Argemone mexicana Linn. A weed in waste land and in disturbed soils. Kolhapur, Panhala (171-73).

BRASSICACEAE

Cardamine trichocarpa Hochst. ex Rich. In moist places, often on walls. Panhala (176).

Coronopus didymus (Linn.) Sm. A garden weed; rare. University campus, Kolhapur (191).

CAPPARACEAE

Cleome simplicifolia Hook. f. and Thoms. Pretty common in open grassland. Kolhapur, Panhala (205, 210).

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FLORA OF KOLHAPUR DISTRICT

C. viscosa Linn. In waste land. Kolhapur
(215).

C. chelidonii Linn. In puddles and along streams during mid monsoon. Kolhapur, Katyayani (222-226).

Crataeva religiosa Forst. Only one tree near Kokhale College hostel, Kolhapur (235).

Cadaba indica Lam. Along bunds of sugarcane field opposite Rankala talao, Kolhapur (246).

FLACOURTIACEAE

Flacourtia indica (Burm. f.) Merrill. In open forests. Katyayani, Panhala (285-292).

POLYGALACEAE

Polygala chinensis Linn. In pasture lands. Kolhapur, Panhala (305-307).

P. persicariaefolia DC. In moist shady places. Katyayani, Panhala (314-317).

CARYOPHYLLACEAE

Saponaria vaccaria Linn. Escape from cultivation, University campus, Kolhapur (326).

Polycarpon prostratum (Forsk.) Aschers and Schweins. Forms carpet in wet land zones of Rankala talao, Kolhapur (335).

PORTULACACEAE

Portulaca oleracea Linn. Quite common along road sides and other open places. Kolhapur, Panhala (344-347).

Portulaca grandiflora Linn. Grows as escape along margins of Rankala talao, Kolhapur (354).

ELATINACEAE

Bergia ammannioides Heyne ex Roth. Common hygrophyte of a number of tanks at Kolhapur (373-376).

MALVACEAE

Abutilon indicum (Linn.) Sweet. In grasslands and waste land. Kolhapur, Panhala (420-423).

Malachra capitata Linn. Rare weed; University campus, Kolhapur.

Sida spinosa Linn. In grasslands. Kolhapur (413).

BOMBACACEAE

Bombax ceiba Linn. In open forests. Panhala, Kolhapur.

STERCULIACEAE

Helicteres isora Linn. Forest margins and forest clearings. Panhala, Gaganbavada (479-482).

Eriolaena quinquelocularis Wight. Katyayani and Radhanagari forests (490-493).

TILIACEAE

Corchorus olitorius Linn. In waste land. Kolhapur (535).

Triumfetta bartramia Linn. Forest edges and in open places. Panhala (526).

MALPIGHIAEAE

Hiptage benghalensis (Linn.) Kurz. Climber with beautiful flowers. Katyayani; Near Amberkhana, Panhala (546, 548).

ZYGOPHYLLACEAE

Tribulus terrestris Linn. In open dry land; not common, Kolhapur (553).

OXALIDACEAE

Oxalis corniculata Linn. In moist land; a weed in gardens. Kolhapur, Panhala (561-64).

Biophytum sensitivum DC. In moist land. Kolhapur (569).

BALSAMINACEAE

Impatiens balsamina Linn. Gregarious and most conspicuous middle monsoon herb in grassland. Kolhapur, Katyayani, Panhala (596-598).

I. inconspicua Benth. In pasture lands during monsoon. Radhanagari, Gaganbavada (586-589).

I. pulcherrima Dalz. In shades; worthy of cultivation. Panhala (610), Ambaghats.

RUTACEAE

Atalantia racemosa Wight and Arn. In forests of Panhala, Ambaghats (644-648).

Aegle marmelos (Linn.) Correa. Often planted near temples. Kolhapur, Katyayani (653).

Glycosmis pentaphylla (Retz.) Correa. In forests. Panhala, near Gaganbavada, Ambaghats (629-632).

Murraya koenigii (Linn.) Spreng. Very common in forest shades. Panhala, Ambaghats (634-636).

MELIACEAE

Cipadessa baccifera (Roth.) Mig. Along forest edges near Gaganbavada (701).

Heynea trifuga Roxb. Forests of Ambaghats, often in cleared forests near Gaganbavada (719, 722).

SIMARUBIACEAE

Balanites roxburghii Planch. Drier parts of Kolhapur district; along Miraj road (674).

OPILIACEAE

Cansjera rheedii Gmel. Open forests Katyayani; along forest slopes, Ambaghats (735-737).

Nothopodytes foetida (Wight) Sleumer. Common in open forests. Panhala, Ambaghats (745, 748).

Sarcostigma kleinii Wight and Arn. A climber; in forests between Amba and Visha ghar.

CELASTRACEAE

Celastrus paniculata Willd. A common straggler along forest margins and open areas. Katyayani, Panhala (771-776).

Gymnosporia montana Benth. In scrubs. Katyayani, Panhala (778-782).

HIPPOCRATEACEAE

Pristimera grahamii (Wight) A. C. Smith. Along fort slopes near Baji Prabhu point, Panhala (788).

RHAMNACEAE

Zizyphus mauritiana Lamk. Several trees are seen on the outskirts of Kolhapur, Katyayani and Panhala but not in actual forest areas (799).

Z. rugosa Lamk. A common climber in the forests of Katyayani, Panhala, Gaganbavada and Ambaghats (809-816).

Z. oenoplia Mill. In grasslands of Kolhapur (805).

VITACEAE

Cayratia elongata (Roxb.) Suessery. Very common climber in forests of Panhala and Gaganbavada (825-830).

Cissus pallida Planch. In rocky areas towards the base of Panhala fort (843).

Leea macrophylla Roxb. ex Horneum. Quite common in cleared forests of Katyayani (848).

L. indica (Burm.) Merrill. Very common shrub in forests and forest margins, Panhala, Gaganbavada, Radhanagari and Ambaghats (860-866).

FLORA OF KOLHAPUR DISTRICT

SAPINDACEAE

Allophylus serratus (Roxb.) Radlk. Scandent shrub in forest shade. Panhala, Gaganbavada (887-869).

Cardiospermum halicacabum Linn. In grassland. Kolhapur, Katyayani and Panhala (882, 883).

Schleichera oleosa (Laur.) Oken. In forests of Katyayani, not common (890).

Sapindus laurifolius Vahl. Very few trees specially near human dwellings (895).

ANACARDIACEAE

Mangifera indica Linn. Abundant in Panhala and Amba (907-915).

Lannea coromandelica (Houtt.) Merrill. Small tree. Katyayani, basement of Panhala fort (922).

Semicarpus anacardium Linn. A few trees near Katyayani temple (927).

Holigarna grahami (Wight) Hook. f. In forests of Ambaghats (934, 936).

Nothopégia celebrookiana Blume. In forests of Ambaghats and Radhanagari (940).

FABACEAE

Goniogyna hirta (Willd.) Ali. Very common in pasture lands of Kolhapur and Panhala ; June-April (963-968).

Crotalaria filipes Benth. var. *trichocarpa* (Benth. ex Baker) Cooke. Pasture lands of Kolhapur, Panhala (975, 978).

C. juncea Linn. Escape from cultivation. University campus, Kolhapur (1030).

C. lutescens Dalz. Grasslands. University campus, Kolhapur (1015).

C. nana Burm. Grasslands, University campus, Kolhapur, Panhala (996).

C. orixensis Willd. University campus, Kolhapur (1046).

C. prostrata Roxb. Amongst grasses. Panhala (1050).

C. spectabilis Roth. Grass lands. Katyayani (1019-1022).

C. vestita Baker. Along forest margins and grassland. Panhala (982).

Indigofera cordifolia Heyne ex Roth. In grass land ; June-April, Kolhapur (1085).

I. dalzellii Cooke. In moist rocky places. Panhala (1089).

I. linnaei Ali. In grasslands. Kolhapur (1096).

I. hendecaphylla Linn. In moist open places and grass lands. Along margins of Rankala Talao, Kolhapur. Panhala (1108).

I. linifolia Retz. In pasture lands, Kolhapur (1079).

I. pulchella Roxb. A shrub in grasslands. Panhala, Katyayani (1143-1146).

I. tinctoria Linn. In waste land. Kolhapur, Panhala. Rare (1132-1135).

I. trita Linn. Grassy places. Kolhapur, Katyayani, Panhala (1113-1116).

Tephrosia coccinea Wall. A shrub in open land. Radhanagari (1154).

T. pumila Pers. Grasslands of Kolhapur, rare (1165).

T. purpurea Pers. A shrub of grasslands. Kolhapur, Panhala (1158).

T. strigosa (Dalz.) Santapau. In grassland, Kolhapur (1150).

Geissaspis cristata Wight and Arn. Grasslands, Panhala (1185).

Zornia diphylla Pers. Common amongst grass land. University campus, Kolhapur, Panhala (1190).

Smithia bigemina Dalz. Very common and attractive middle monsoon herb in grasses. Ambaghat, Panhala (1217, 1220.).

- S. blenda* var. *racemosa* Baker. Kolhapur, Panhala (1225, 1227).
- S. co. ferta* Sm. University campus, Kolhapur and Panhala (1199).
- Smithia setulosa* Dalz. Grassy places. Kolhapur (1209-1212).
- Aeschynomene indica* Linn. Middle monsoon herb in moist places. Kolhapur (1235).
- A. aspera* Linn. Along marshes of Vadanige lake near Kolhapur.
- All species of *Alysicarpus* noted below are found in grasslands.
- Alysicarpus belgaumensis* Wight. Radhanagari (1275).
- A. bupleurifolius* DC. Kolhapur (1256).
- A. pubescens* Law. Very conspicuous because of pubescence and elegant inflorescences. Kolhapur (1270).
- A. rugosus* DC. Kolhapur (1261-1263).
- A. rugosus* DC. var. *heyneanus* Baker. Kolhapur (1265).
- A. tetragonolobus* Edgew. Kolhapur, Panhala (1268).
- A. vaginalis* DC. Kolhapur, Panhala (1250-1254).
- Desmodium diffusum* DC. Amongst grass. Kolhapur (1297).
- D. gangeticum* (Linn.) DC. A shrub in open places and forest clearings. Panhala, Gaganbavada, Radhanagari (1317-1322).
- D. latifolium* DC. An undershrub with spreading branches. Panhala (1325).
- D. laxiflorum* DC. Undershrub. Kolhapur-Panhala (1286).
- D. polycarpum* DC. Often in shades of forest trees. Gaganbavada, Radhanagari (1290, 1293).
- D. rotundifolium* Baker. Spreading herb in grasses. Katayani, Panhala (1330).
- D. triflorum* (Linn.) DC. Very common in rocky areas. Panhala, Radhanagari (1305-1309).
- D. triquetrum* DC. Panhala (1312).
- Abrus precatorius* Linn. A climber in forests or along forest margins. Gaganbavada, Radhanagari (1338).
- Teramnus labialis* Spreng. A twiner along forest edges (1348-1351).
- Mucuna prurita* Hook. Forest edges. Gaganbavada.
- Erythrina variegata* Linn. var. *orientalis* (Linn.) Merr. Some trees are seen at Panhala (1359).
- Butea monosperma* (Lamk.) Taub. Saplings of this tree are seen all over the rocky areas around Kolhapur. In forests of Katayani.
- Pueraria lobata* (Willd.) Ohwi. Amongst grass. Kolhapur (1368).
- Clitoria ternata* Linn. In hedges ; often cultivated. Kolhapur, Panhala (1387-1389).
- Atylosia scarabaeoides* Benth. Twiner in forests of Radhanagari (1400).
- Moghania strobilifera* (Linn.) St. Hil. ex Jacks. In forests and edges of forests. Panhala, Radhanagari (1425-1430).
- Dalbergia latifolia* Roxb. A few trees are seen at basement of Panhala fort with heavy infection of *Viscum angulatum* (1439).
- Dalbergia sympathetica* Nimmo ex Grah. Hooked climber; very common in forests of Panhala, Radhanagari and Ambaghats (1448-1451).
- Derris indica* (Lamk.) Bennet. [*Pongamia pinnata* (Linn.) Pierre.] Common in forests of Panhala ; around Kolhapur (1465).

CAESALPINACEAE

- Caesalpinia sepiaria* Roxb. Along bunds of Sugarcane fields. Kolhapur-Panhala road; Panhala fort near Tabak bag (1493).

FLORA OF KOLHAPUR DISTRICT

Wagatea spicata Dalz. In forests of Panhala, Ambaghats (1505-1510).

COMBRETACEAE

Cassia fistula Linn. Panhala, Radhanagari (1512).

Terminalia bell. rica (Gaertn.) Roxb. Panhala (1762).

C. sophera Linn. In waste land. Katyayani ; near Phule wadi, Kolhapur (1516).

T. chebula Retz. Very common in Ambaghats ; also in Panhala and Gaganbavada forests (1768-1772).

C. tora Linn. In waste land. Kolhapur (1522).
C. auriculata Linn. Along road sides. Katyayani (1528).

T. crenulata Roth. Panhala and Radhanagari (1775).

C. absus Linn. Among grass. Katyayani, Kolhapur (1538).

MYRTACEAE

Cassia pumila Lamk. In pasture lands. Kolhapur, Katyayani (1545-1548).

Syzygium cuminii (Linn.) Skeels. Abundant in Panhala (1791).

MIMOSACEAE

Entada scandens Benth. In dense forests of Radhanagari and Ambaghats.

Careya arborea Roxb. Common in Panhala, Radhanagari and forests near Gaganbavada (1805).

Dichrostachys cinerea Wight and Arn. In rocky open areas. Kolhapur (1589).

LECYTHIDACEAE

Mimosa pudica Linn. Weed in moist places and in gardens. Kolhapur (1592).

Osbeckia truncata D. Don. In grasslands and rice fields. Moist situations. Gaganbavada (1815).

M. hamata Willd. In rocky open areas. University campus, Kolhapur (1598).

MELASTOMACEAE

Acacia concinna DC. Common. Panhala (1605).

LYTHRACEAE

CRASSULACEAE

Bryophyllum pinatum (Lamk.) Oken. In moist places. Panhala, Ambaghats (1651).

Rotala densiflora (Roth.) Koehne. In moist places along margins of ponds and puddles. Around Nimajgah, Panhala (1845).

DROCERACEAE

Drosera burmanni Vahl. Along margins of temporary ponds near Amba village (1673).

Ammania baccifera Linn. In marshes. Kolhapur (1855).

D. indica Linn. In moist places. Near Nimajgah, Panhala ; amongst grasses, Kolhapur (1679).

Woodfordia fruticosa (Linn.) Kur. In forest clearings Radhanagari, Gaganbavada, sometimes on old fort walls, Panhala (1864-1869).

RHIZOPHORACEAE

ONAGRACEAE

Carallia brachiata (Laur.) Merrill. In dense forests of Radhanagari and Ambaghats (1689).

Ludwigia perennis Linn. In marshy places. Kolhapur (1881).

CUCURBITACEAE

Trichosanthes bracteata (Lamk.) Voigt. Very common climber of Panhala ; Gaganbavada (1899).

T. cucumerina Linn. Rare twiner. Panhala (1905).

Bryonopsis laciniosa Naud. Often on hedges ; Katyayani (1922).

Melothria maderaspatna Cogniaux. Very common in grassy places in Kolhapur (1932).

BEGONIACEAE

Begonia crenata Dryand. Pretty common in moist places. Panhala, Gaganbavada, Ambaghats, Radhanagari (1943-1949).

B. trichocarpa Dalz. In dense jungles in shades of forest trees. Gaganbavada (1961).

CACTACEAE

Opuntia dillenii Haw. In dry localities, often as weed. Kolhapur, Panhala.

MOLLUGINACEAE

Glinus lotoides O. Kze. In moist clayey soils (1976).

Mollugo pentaphylla Linn. Common in moist places along gutters and margins of Talaeos. Kolhapur, Panhala (1980-1982).

M. pentaphylla var. *rupestris* Cooke. In moist rocky places around Nimajgah, Panhala (1984-1986).

AIZOACEAE

Trianthema portulacastrum Linn. Along road sides. University campus, Kolhapur (1972).

APIACEAE

Centella asiatica (Linn.) Urban. Along margins of Talaeos in Kolhapur (1992).

Pimpinella adscendens Dalz. In grass lands. Panhala, Gaganbavada (1998-2001).

P. lateriflora Dalz. and Gibbs. In forest clearings on way to Gaganbavada (2015).

Peucedium dhana Ham. In grasslands of Kolhapur (2022).

RUBIACEAE

Annotis foetida (Dalz.) Benth. and Hook. Herb in rocky moist areas. Gaganbavada fort (2096).

A. lancifolia (Dalz.) Hook. f. Very abundant and conspicuous monsoon herb in grasses. Jotiba, Panhala (2108-2112).

A. montholoni Hook. f. Amongst grasses. University campus, Kolhapur (2123).

A. rheedei Benth. and Hook. Jotiba, Panhala (2115-2117).

Borreria hispida (Linn.) Schum. Rocky places, University campus, Kolhapur (2226).

Canthium parviflorum Lamk. Not common. Near Rankala, Kolhapur ; Panhala (2172).

C. dicoccum (Gaertn.) Merrill. Forests of Ambaghats (2176).

Dentella repens (Linn.) Forst. Mat forming hygrophyte. Kagal lake ; Rajaram Tank, Kolhapur (2070).

Hamiltonia suaveolens Roxb. Amongst stone crevices of Sadoba tank, Panhala (2223).

Hymenodictyon obovatum Wall. Along slopes towards fort, Gaganbavada ; along Rajdindi road, Panhala ; towards Vishalghar, Ambaghats. Nowhere very common (2056-2058).

Ixora arborea Roxb. ex Sm. Common shrub in forests of Panhala (2198).

I. elongata Heyne. Behind Katyayani temple, Katyayani (2195).

Meyna laxiflora Robyns. In rocky grasslands. Kolhapur.

Oldenlandia crystallina Roxb. In moist rocky places. Panhala (2089).

O. corymbosa Linn. Pasture lands. Panhala (2082).

O. herbacea (Linn.) Roxb. Panhala (2086).

Pavetta indica Linn. Edges of forests and along cleared areas. Panhala, Gaganbavada, Radhanagari (2205-2209).

FLORA OF KOLHAPUR DISTRICT

Randia uliginosa DC. Behind Katyayani temple, a few trees.

Rubia manjith Roxb. ex Flem. Panhala in Tabak Udyan area (2231).

Wendlandia thyrsidea Steud. Along forest edges and clearings. Panhala (2064-2066).

Xeromphis spinosa (Thunb.) Keay. Very common on Panhala fort plateau (2145).

ASTERACEAE

Acanthospermum hispidum DC. Weed. Kolhapur (2410).

Artemisia vulgaris Linn. Along edges of Tabak Udyan, Panhala (2338).

Bidens biternata (Lour.) Merr. and Sheriff. Weed. Gopaltirth, Panhala. Kolhapur (2329).

Blumea malcolmii Hook. f. Densely hairy herb in open areas; post-harvest weed in rice fields. Kolhapur, Panhala (2278).

B. membranacea DC. In dry areas amongst grasses. Panhala (2270).

Caesulia axillaris Roxb. Common in marshy places. Kolhapur (2312).

Cyathocline purpurea (D. Don) O. Ktze. Weed in rice fields (2254).

Elephantopus scaber Linn. In shades of forest trees. Sometimes in forest clearings. Panhala, Ambaghats (2252).

Eclipta prostrata (Linn.) Linn. Common in grasses, along road sides, Kolhapur (2320).

Echinops echinatus Roxb. Dry rocky places. Kagal (2360).

Flaveria contrayerba Pers. Weed in waste places, Kolhapur (2396).

Gynura angulosa DC. Edges of Ghat slopes. Ambaghats (2347).

Gnaphalium indicum Linn. Moist and marshy places. Rajaram Tank, Kolhapur (2295).

Lactuca runcinata DC. Weed in cultivated fields. Katyayani (2360).

Lagasca mollis Cav. Quite common and gregarious in waste places, on road sides. Kolhapur (2315).

Parthenium hysterophorus Linn. A rapidly spreading weed, Kolhapur (2415).

Pulicaria wightiana C. B. Clarke. In open areas amongst grasses. Panhala (2305).

Senecio grahami Hook. f. Often on old walls. Panhala (2352).

Sphaeranthus africanus Linn. Forest edges, Panhala (2290).

Tridax procumbens Linn. In rocky dry places, along road sides. Kolhapur, Panhala (2335).

LOBELIACEAE

Lobelia alsinoides Lamk. In pasture lands. Panhala, Gaganbavada (2420-2425).

L. heyneana Roem. and Sch. Pasture lands. Amba village (2430).

L. nicotianaeifolia Heyne. In dense forests and forest edges. Panhala, Ambaghats (2435, 2438).

PLUMBAGINACEAE

Plumbago zeylanica Linn. In dry open areas. Kolhapur (2447).

PRIMULACEAE

Anagallis arvensis Linn. Along road sides. Kolhapur (2449).

A. pumila Swart. Monsoon herb in pasture lands. Basement of Panhala fort (2452, 2456).

MYRSINACEAE

Maesa indica Wall. Along forest edges. Panhala rare; Radhanagari, common (2460, 2462).

Embelia tsjariam-cottam A. DC. Rare; Katyayani (2469).

SAPOTACEAE

Xantolis tomentosa (Roxb.) Raf. Common in Panhala on way to Tin Darwaja from Sadoba darga (2474).

Mimusops elengi Linn. Very common on Panhala plateau (2483).

PERIPLOCACEAE

Hemidesmus indicus R. Br. Common in forests and forest clearings. Panhala, Gaganbavada (2581).

Cryptolepis buchanani Roem. and Schult. Common. Kolhapur, Katyayani, Panhala (2585-2587).

EBENACEAE

Diospyros montana Roxb. Generally in association with *Xantolis tomentosa*. Panhala (2505).

OLEACEAE

Jasminum malabaricum Wight. Katyayani, Panhala, Gaganbavada, Ambaghats. Very common at all places (2510).

Schrebera swietenioides Roxb. This was collected only once (26/9/1968) near Gaganbavada village on way to fort.

APOCYNACEAE

Carrisa congesta Wight. Very common often gregarious. Panhala, Katyayani (2535, 2538).

Rauwolfia canescens Linn. A rare weed in waste places of Kolhapur (2543).

Catharanthus pusillus (Murr.). G. Don. A weed in gardens. Kolhapur (2548).

Alstonia scholaris (Linn.) R. Br. Near Amba village towards tannin factory.

Holarrhena antidysenterica Wall. Common in forests of Katyayani, Panhala and Gaganbavada (2556).

Tabernaemontana heyneana Wall. Along road sides between Amba village and rest house (2560).

Vallaris solanacea (Roth.) Kuntze. On way to Pusati point along fort wall, Panhala (2562).

ASCLEPIADACEAE

Asclepias curassavica Linn. Around temporary pond near Phule wadi, Kolhapur (2714).

Calotropis gigantea R. Br. Along road sides and in waste places. Kolhapur, Panhala (2591, 2593).

Ceropegia attenuata Hook. In grasslands. Katyayani (2693).

C. tuberosa Roxb. In forests of Panhala.

C. huberi Ansari. Along fort slopes in Gaganbavada and slopes of Ambaghats (2698).

Dregea volubilis Benth. ex Hook. Near Rajaram Tank, Kolhapur, Ambarkhana border, Panhala (2678).

Gymnema sylvestre (Ret.) R. Br. Near Baji Prabhu point, Panhala (2667).

Hoya pendula Wight and Arn. In forests of Ambaghats (2686).

Leptadenia reticulata Wight and Arn. Forest edges. Panhala, Gaganbavada (2689).

Pergularia daemia (Forsk.) Blatt. and McC. Often in hedges. Kolhapur; on way to Gaganbavada (2660).

Tylophora dalzellii Hook. f. Common in Panhala above Sadoba darga and in Ambarkhana (2670, 2674).

LOGANIACEAE

Strychnos colubriana Linn. Forests near Gaganbavada (2720).

MENYANTHACEAE

Nymphoides indicum (Linn.) O. Kuntze. Rankala Talaeo, Kolhapur, Kagal lake, Kagal (2727).

N. cristatum (Roxb.) O. Kuntze. Rankala Talaeo, Kolhapur ; Kagal lake, Kagal (2730).

GENTIANACEAE

Canscora diffusa R. Br. In moist places often along slopes. Katyayani, Gaganbavada, Ambaghats (2750).

Centaurium roxburghii (G. Don) Druce. In moist places ; University campus, Kolhapur (2745).

Exacum bicolor Roxb. On way to Katyayani along nala ; pasture lands, Panhala (2734).

E. lawii Clarke. In pasture lands. Kolhapur, Panhala, Gaganbavada (2740).

E. petiolare Griseb. In pasture lands. Kolhapur, Panhala, Gaganbavada (2737).

EHRETIACEAE

Cordia dichotoma Forst. f. Common. Panhala, Katyayani (2761, 2763).

BORAGINACEAE

Adelocaryum coelestium (Lindl.) Brand. Along slopes of Ambaghats (2805).

Coldenia procumbens Linn. Gregarious. Rajaram Tank, Kolhapur (2778).

Cynoglossum meeboldii Brand. Forest edges. Panhala, Radhanagari (2797, 2800).

Heliotropium ovalifolium Forsk. In grassy places. Kolhapur (2787).

Trichodesma amplexicaule Roth. A weed in fields ; often in waste places and grasslands. Kolhapur (2793).

CUSCUTACEAE

Cuscuta reflexa Roxb. Common specially on hedge plants—*Clerodendrum*, *Duranta*, *Vitex* ; Kolhapur, Panhala (2813).

CONVOLVULACEAE

Argyreia hookeri Clarke. Common in forests of Panhala, Ambaghats (2884, 2888).

A. elliptica Choisy. Panhala, behind Moro-plant library (2894).

Convolvulus arvensis Linn. Weed of cultivated fields. Kolhapur (2835).

Erycibe wightiana Graham. Forests of Ambaghats (2817).

Evolvulus alsinoides Linn. In grass lands. Kolhapur, Panhala (2823, 2825).

Ipomoea aquatica Forsk. Common in all Talaeos of Kolhapur, Vadanige and Kagal near Kolhapur (2857, 2859).

I. cairica (Linn.) Sweet. Extensively cultivated ; often runs wild (2845, 2846).

I. longiflora R. Br. Along hedges. Stem with prominent subspinous tubercles. Near Rankala, Kolhapur (2872).

I. obscura Ker.-Gawl. Ambaghats (2863).

Merremia hastata Hallier. In dry rocky areas of Kolhapur (2841).

SOLANACEAE

Datura metel Linn. Common weed of waste places. Kolhapur, Panhala (2958).

Nicandra physaloides (Linn.) Gaertn. Weed. Panhala (2975).

Physalis minima Linn. Weed. Not common. Kolhapur, Panhala (2950).

Solanum nigrum Linn. Weed. Kolhapur, Panhala (2905, 2910).

S. surattense Burm. F. In dry rocky areas and along road sides, Kolhapur. (2922).

- S. indicum* Linn. Very common throughout Panhala Plateau and also in Katayani (2930).
- S. torvum* Swart. Opposite Rankala along bunds of sugarcane fields; probably escape (2940).
- S. seaforthianum* Andr. Escape from cultivation. Opposite Rankala, Kolhapur; Near Mayur Udyan, Panhala (2945).
- Withania somnifera* (Linn.) Dunal. Weed in waste places. Kolhapur (2954).
- Pelpidium maritimum* (Linn.) Wettst. Marshes of Vadanige lake near Kolhapur.
- Rhamphicarpa longiflora* (Arn.) Benth. Moist places, Pasture lands. Gaganbavada, Radhanagari.
- Sopubia delphinifolia* (Roxb.) G. Don. Grass-lands. Panhala (3071, 3073).
- Stemodia viscosa* Roxb. In hygrophytic places. Kolhapur, Radhanagari (3010, 3029).
- Striga densiflora* Benth. Weed in jawar and sugarcane fields. Kolhapur, Tandulwadi, Gaganbavada (3056, 3057).

SCHROPHULARIACEAE

- Artanema longifolia* (Linn.) Merrill. In grass-lands of Gaganbavada, Radhanagari and Amba (3032).
- Bacopa monnieri* (Linn.) Pennell. Common in damp places and ditches. Kolhapur, Radhanagari (2998).
- Dopatorium junceum* (Roxb.) Buch.—Ham. Marshy places. Kolhapur, Katayani (3024).
- Kickxia ramosissima* (Wall.) Janchen. In crevices of fort walls and other old buildings. Kolhapur, Panhala, Gaganbavada (2990, 2992).
- Limnophila sessiliflora* Blume. Very common in many Talaeo's around Kolhapur (3017, 3020).
- Lindernia anagallis* (Burm.) Pennell. Moist and marshy places; a weed in rice fields. Kolhapur (3088).
- L. ciliata* (Colsm.) Pennell. Monsoon herb in moist places. Gaganbavada, Amba (3088).
- L. crustacea* (Linn.) F. Mueller. Moist places, often along road sides. Panhala, Malkapur (3035).
- L. parviflora* (Roxb.) Haines. Herb in marshes. Kolhapur, Katayani, Kadamwadi, Gaganbavada (3039).
- Mimulus strictus* Benth. Kolhapur, Katayani, Gaganbavada (3102, 3105, 3107).
- Verbascum chinense* Santapau. Along road sides. Kolhapur, Malkapur, Radhanagari (2980, 2985).

OROBANCHACEAE

- Aeginetia indica* Linn. Total root parasite in dense forests. Gaganbavada, Ambaghats (3091, 3094).
- Christisonia calcarata* Wight. Parasitic on roots of *Carvia ciliosa*. On way to fort top, Gaganbavada (3099).

GESNERIACEAE

- Klugia notoniana* (Wall.) A. DC. In moist places; in wall crevices. Panhala, Gaganbavada (3118, 3120).
- Rhynchoglossum obliquum* Blume var. *parviflora* Clarke. On forest slopes; in cleared areas, gregarious. Gaganbavada (3122, 3125).

FLORA OF KOLHAPUR DISTRICT

BIGNONIACEAE

Heterophragma quadriloculare (Roxb.) K. Schum. Common on Panhala plateau and Katyayani (3142, 3145).

Tecoma stans (Linn.) H.B.K. In dry places around Kolhapur; Basement of Panhala fort. Not very common (3138).

PEDALIACEAE

Sesamum laciniatum Klein ex Willd. Common around Kolhapur and near Kagal in dry rocky soils amongst grasses (3179, 3185).

MARTYNIACEAE

Martynia annua Linn. In waste places. Kolhapur, on way to Panhala, Kagal (3215).

ACANTHACEAE

Adhatoda vasica Nees. Gregarious in open places. Panhala, Gaganbavada (3392, 3394).

Andrographis paniculata (Burm. f.) Wall. ex Nees. Along forest edges, rarely in open areas. Jotiba, Panhala (3282).

Asteracantha longifolia (Linn.) Nees. Along sewage canals. Kolhapur (3240, 3242).

Asystasia dalzelliana Santapau. Near Tin Darwaja, and Tabak Udyan, Panhala (3326, 3328).

A. lawiana Dalz. Behind Katyayani temple, Katyayani (3332).

Barleria cristata Linn. In hedges, sometimes cultivated. Panhala, Katyayani (3303, 3305).

B. gibsoni Dalz. Grasslands. Katyayani (3320).

B. prionitis Linn. Common in hedges. Panhala, Kolhapur (3293, 3295).

Blepharis asperrima Nees. In shade of forest trees. Panhala, Ambaghats (3229, 3235).

Carvia callosa (Wall.) Brem. Thickets along slopes on way to Gaganbavada (3275).

Eranthemum roseum R. Br. In shade. Panhala, Gaganbavada (3257, 3260).

Haplanthus verticillatus (Roxb.) Nees. Along forest edges in shade. Panhala (3286).

Justicia betonica Linn. Tabak Udyan, Panhala (3376).

Lepidagathis cristata Willd. On rocky ground amongst grasses. Kolhapur, Kagal, Panhala (3337).

Peristrophe bicalyculata (Ret.) Nees. Near Tin Darwaja, Panhala, Jotiba. Not common (3398).

Rostellularia crinita Nees. Along road sides. Kolhapur (3388).

Rungia elegans Dalz. and Gibbs. Along road sides, in grasses. Kolhapur (3367).

R. pectinata (Linn.) Nees. Amongst grasses. Panhala (3358).

VERBENACEAE

Calicarpa tomentosum (Linn.) Murray. Forest edges. Panhala, Ambaghats (3428).

Clerodendrum fragrans (Vent.) R. Br. Mostly cultivated but grows as escape in Panhala (3463).

C. viscosum Vent. Very common in forest clearings. Panhala, Gaganbavada, Radhanagari (3450-3455).

C. serratum (Linn.) Moon. In grass lands; specially in forest clearings. Katyayani, Panhala, Radhanagari, Gaganbavada (3457-3459).

Duranta repens Linn. Extensively cultivated as hedge in Panhala, often grows as escape (3480, 3482).

Lantana camera Linn. var. *aculeata* (Linn.) Moldenke. Very common in Panhala, gregarious (3411).

Phyla nodiflora (Linn.) Green. Very common in moist places. Kolhapur, Panhala (3415).

Stachytarpheta jamaicensis (Linn.) Vahl. Rare.
Near Tabak Udyan & Tin Darwaja, Panhala
(3423).

Vitex negundo Linn. Very common. Usually
around dwellings. Kolhapur, Panhala,
Katyayani, Gaganbavada (3440-3443).

LAMIACEAE

Anisochilus carnosus Wall. Very common in
rainy season specially on tile roofs.
Kolhapur, Panhala, Gaganbavada (3507-
3509).

Colebrookea oppositifolia Sm. Gregarious in
cleared forests. Panhala, Radhanagari,
Ambaghats (3540-3543).

Dysophylla stellata Benth. Around the puddles
and marshes. Kolhapur, Panhala, Gagan-
bavada (3532, 3535).

Hyptis suaveolens (Linn.) Poit. Gregarious in
waste places. Kolhapur (3604).

Lavandula burmanni Benth. Amongst grasses.
Kolhapur, Panhala (3524, 3526).

Leonurus sibiricus Linn. Behind Jotiba temple
in waste places. Jotiba (3549).

Leucas aspera Spreng. Amongst grass.
Kolhapur (3458).

L. biflora R. Br. Amongst grass. Kolhapur
(3577).

L. ciliata Benth. In grass lands and forest
clearings. Panhala, Gaganbavada (3582-
3584).

L. stelligera Wall. ex Benth. In grasslands and
forest clearings. Panhala, Gaganbavada
(3586, 3587).

L. urticifolia R. Br. Kadamwadi near
Kolhapur (3554-3556).

Plectranthus incanus Link. Katyayani ; base-
ment of Panhala fort (3498).

Pogostemon plectranthoides Desf. Gregarious
in Panhala ; in forest clearings, Radhanagari
(3524-3526).

PLANTAGINACEAE

Plantago major Linn. Along Panchaganga
river beds, Kolhapur (3610).

NYCTAGINACEAE

Boerhaavia diffusa Linn. Pretty common in
Kolhapur. Plants are better developed in
shade than in sunny areas (3619, 3625).

AMARANTHACEAE

Achyranthes aspera Linn. Amongst grasses.
Kolhapur, Panhala (3676-3677).

Aerva sanguinolenta (Linn.) Blume. Forest
edges. Panhala (3668).

Alternanthera pungens H.B. & K. In dry rocky
places; sometimes along road side. Kolhapur,
Panhala (3693).

A. sessilis (Linn.) DC. Weed in damp and
waste land. The species shows remarkable
variation in vegetative characters (3688).

Amaranthus spinosus Linn. In waste places.
Kolhapur, Panhala (3647-3649).

Celosia argentea Linn. Weed in fields.
Kolhapur (3637-3639).

Digera alternifolia (Linn.) Aschers. In grasses
and road sides ; rare. University campus,
Kolhapur.

Gomphrena celosioides Mart. In waste places
and along road sides. Kolhapur, Panhala
(3696).

G. globosa Linn. Often found as escape from
cultivation in waste land. University cam-
pus, Kolhapur (3698).

CHENOPodiaceae

Chenopodium ambrosioides Linn. Weed in
gardens. Kolhapur (3704).

FLORA OF KOLHAPUR DISTRICT

POLYGONACEAE

Antigonon leptopus Hook. and Arn. Cultivated but runs wild in Panhala (3759).

Polygonum chinense Linn. Very common in Panhala, Gaganbavada (3749-3751).

P. glabrum Willd. Marshes of Kolhapur, Shiroli talao, Vadaniye talao near Kolhapur (3732-3735).

P. plebejum R. Br. Very common in all marshes and damp localities. Kolhapur, Panhala Radhanagari (3727-3729).

PODOSTEMACEAE

Terniola zeylanica (Gardn.) Tul. In streams of Ambaghat and Radhanagari.

Griffithella hookeriana (Tul.) Warming. Near Gaganbavada in stream.

PIPERACEAE

Piper hookeri Mig. In forests of Ambaghats (3782).

P. longum Linn. In shady places along the bunds of sugarcane fields near Rankala (3785).

LAURACEAE

Cinnamomum zeylanicum Blume. Gohlna area of Radhanagari forests (3805-3806).

Alseodaphne semicarpifolia Nees. Ambaghats (3813).

THYMELAEACEAE

Lasiosiphon eriocephalus Deine. Very common along forest margins and forest clearings. Panhala, Radhanagari, Gaganbavada, Katyayani and Ambaghats (3827-3835).

ELAEAGNACEAE

Elaeagnus conferta Roxb. Ambaghats on way to Pratapnagar (3840).

LORANTHACEAE

Dendrophthoe falcata (Linn. f.) Ettings. Very common on *Mangifera indica* and *Melilotus philippiensis* at Panhala (3856, 3859).

D. falcata Ettings var. *coccinea* (Talb.) Santapau. Radhanagari on *Terminalia crenulata*.

VISCACEAE

Viscum angulatum Heyne ex DC. On *Dalbergia latifolia*, Panhala; on *Terminalia chebula*, Radhanagari (3879, 3880).

SANTALACEAE

Osyrис wightiana Wall. ex Wight. In forests. Katyayani, Panhala (3893-3897).

Santalum album Linn. Panhala, Kolhapur. Possibly cultivated (3886-3888).

EUPHORBIACEAE

Acalypha ciliata Forsk. Often grows in wall crevices. Kolhapur (4204).

Bridelia squamosa (Lamk.) Gehrm. Common at Panhala, Katyayani and Gaganbavada (4067-4069).

Chrozophora rottonieri (Geis.) Juss. ex Spr. Weed in cultivated fields and puddles. Kolhapur (4193).

Croton bonplandianum Baill. Weed of waste land. Kolhapur (4179).

Emblica officinalis Gaertn. Radhanagari forests (4112).

Euphorbia geniculata Orteg. In waste places. Kolhapur, Panhala (4053-4058).

E. hirta Linn. Throughout plains of Kolhapur and Panhala (4034, 4036).

E. nerifolia Linn. On rocky slopes. Ambaghats. Gaganbavada.

E. rothiana Spreng. Amongst grasses in forest clearings. Gaganbavada (4009).

E. thymifolia Linn. Very common throughout plains of Kolhapur and Panhala (4043).

Glochidion hohenackeri Bedd. Panhala, Radhanagari (4087).

G. malabaricum Bedd. Katyayani, Panhala (3879).

Jatropha curcas Linn. Near habitation. Kolhapur, Panhala (4148, 4153).

J. gossypifolia Linn. In waste land in Rajarampuri, Kolhapur (4158).

Kirganelia reticulata (Poir.) Baill. In open places. Kolhapur, Panhala (4108).

Macaranga peltata (Roxb.) Muell.-Arg. Radhanagari, Ambaghats (4238).

Melanthesa turbinata (Koen. ex Roxb.) Wight. In forests and along forest edges. Panhala, Gaganbavada (4102).

M. lilotus philippiensis (Lamk.) Muell.-Arg. Very common. Panhala, Katyayani, Gaganbavada, Ambaghats (4222).

Phyllanthus asperulatus Hutch. In grassland, Kolhapur, Panhala (4117-4119).

P. urinaria Linn. Grass land. Kolhapur (4123).

Sapium insigne Trimen. Forest margins and clearings. Rajdindi road, Panhala; forests near Gaganbavada; Along streams near Amba tannin factory, Amba (4255).

Securinega leucopyrus (Willd.) Muell.-Arg. Common in open areas. Kolhapur, Katyayani, Panhala (4098).

Tragia muelleriana var. *unicolor* (Muell.-Arg.) Pax and Hoffm. Under shades of forest trees. Panhala, Gaganbavada (4248).

MORACEAE

Ficus asperrima Roxb. Quite common shrub of Panhala Plateau.

F. glomerata Roxb. Kolhapur, Panhala, Radhanagari; often cultivated.

F. rumphii Blume. Common along fort walls, Panhala.

F. tsiela Roxb. All over Panhala Plateau. Possibly cultivated.

URTICACEAE

Boehmeria scabrella (Roxb.) Gaud. Stinging herb in shades. Panhala Gaganbavada (4304-4306).

Flurya interrupta (Linn.) Gaud. Common on old walls. Kolhapur, Panhala, Gaganbavada (4285-4288).

Girardinia zeylanica Decne. In waste land during rainy season. Panhala, Gaganbavada (4292).

Lecanthus peduncularis (Wall.) Wedd. Succulent in moist localities and in wall crevices. Panhala, Gaganbavada (4298).

Pilea microphylla (Linn.) Liebm. Naturalized; in damp places. Kolhapur, Panhala (4322).

Pouzolzia zeylanica (Linn.) Benn. In rocky moist areas on Gaganbavada fort (4311).

P. pentandra Benn. Along streams. Kolhapur (4314).

SALICACEAE

Salix tetrasperma Roxb. Along river beds and streams. Kolhapur, Malkapur (4330).

CERATOPHYLLACEAE

Ceratophyllum demersum Linn. Common in all lakes and ponds of Kolhapur (4336).

ULMACEAE

Celtis cinnamomea Lindl. Very common in Panhala but not in other areas of Kolhapur district. Panhala (4272).

Trema orientalis (Linn.) Blume. Common. Panhala, Kolhapur (4276, 4280).

FLORA OF KOLHAPUR DISTRICT

HYDROCHARITACEAE

Blyxa octandra (Roxb.) Planch. ex Thw. Submerged herb with purplish tufted leaves. Kagal lake, Kagal.

Hydrilla verticillata (Linn. f.) Royle. All lakes, ponds and puddles of Kolhapur, Kagal lake (4661-4664).

Vallisneria spiralis Linn. Common in all water spreads (4668).

BURMANNIACEAE

Burmannia pusilla (Wall. ex Miers.) Thew. In pasture lands during September-October. Gaganbavada (4681-4684).

ORCHIDACEAE

Dendrobium barbatulum Lindl. Common in forests of Panhala, Radhanagari and Ambaghats (4714-4716).

D. microbulbon A. Rich. Near Gohlna, Radhanagari (4706).

Eria dalzellii Lindl. Radhanagari, Ambaghats. (4758-4761).

Eulophia pratensis Lindl. Marshes of Kagal lake (4776).

E. nuda Lindl. In shades of forest trees. Ambaghats (4779).

Habenaria commelinifolia Wall. ex Lindl. Grasslands. Radhanagari (4892).

H. grandiflora Lindl. In grasslands ; earliest *Habenaria* to flower in monsoon. Very common. Kolhapur, Katyayani, Kagal, Panhala, Gaganbavada, Radhanagari, Ambaghats. Throughout the district (4852-4857).

H. longecalcarata A. Rich. Grasslands. An attractive species because of its long spur. Kolhapur (4859).

H. marginata Coleb. In rice fields. Kolhapur, Panhala (4901-4906).

Oberonia recurva Lindl. Panhala, Gaganbavada, Radhanagari and Ambaghats (4693-4696).

Vanda parviflora Lindl. Panhala, Radhanagari (4852-4857).

ZINGIBERACEAE

Curcuma inodora Grah. Very common along forest edges and in forest clearings. Panhala, Gaganbavada, Radhanagari (4936).

Curcuma sp. Under growth in dense forests and along forest edges. Panhala, Radhanagari.

Hedychium coronarium Koen. Only one patch of it was seen along margin of temporary pond behind Shalini palace, Kolhapur (4929).

Zingiber cernuum Dalz. Under growth in dense forests. Near Gaganbavada (4959).

COSTACEAE

Costus speciosus (Koenig.) Smith. Common along forest edges. Panhala, Gaganbavada, Radhanagari, Ambaghats (4971-4973).

CANNACEAE

Canna indica Linn. Escape. Along stream near Rankala, Kolhapur ; behind Tin Darwaja, Panhala.

MUSACEAE

Ensete superbum (Roxb.) Cheesman. Along Ghat slopes. Ambaghats, Gaganbavada.

HYPODYCACEAE

Curculigo orchioides Gaertn. In open grasslands and forest clearings. Kolhapur, Gaganbavada, Radhanagari (5041-5046).

Hypoxis aurca Laur. Common in pasture lands. Kolhapur, Panhala (5032-5038).

AMARYLLIDACEAE

Crinum latifolium Linn. Along streams.
Kolhapur; on way to Katyayani.

AGAVEACEAE

Agave vera-cruz Mill. Escape. Panhala.

DIOSCOREACEAE

Dioscorea bulbifera Linn. Common. Katyayani, Panhala, Gaganbavada, Radhanagari (5132-5136).

D. pentaphylla Linn. In all forests. (5122-5128).

LILIACEAE

Asparagus racemosus Willd. var. *javanica* Baker. Katyayani, Panhala, Gaganbavada, Ambaghats. Forest margins and clearings (5142).

Asphodelus tenuifolius Cav. Weed in cultivated fields. Kolhapur (5238).

Chlorophytum glaucum Dalz. Gaganbavada, Radhanagari. Rare.

C. laxum R. Br. Pasture lands of Kolhapur, Panhala (5238).

Gloriosa superba Linn. In forest clearings. Katyayani, Panhala, Ambaghats (5175-5178).

Iphigenia indica (Linn.) A. Grey. In grass lands, Panhala, Radhanagari; Plants with 4-5 perianth segments and 4-5 stamens are not rare in fields (5181-5186).

I. pallida Baker. Common in pasture lands. Kolhapur (5188).

Lebedouria hyacinthiana Roth. In pasture lands. Kolhapur, Radhanagari (5198-5208).

There are two populations of this species : Population collected from Radhanagari has larger lanceolate-ob lanceolate nonblotched leaves which regularly end in bulbils at tips : The flowering in this population is rare and

flowers wither away without forming fruits. The main reproduction is by bulbils. The other population commonly seen in the plains of Kolhapur has smaller lanceolate blotched or faintly blotched leaves rarely terminating in bulbils. The main reproduction is by seeds which germinate as soon as they are ripe. The roots in this population are often tuberous. Both the populations have remained distinct under uniform conditions of cultivation at Kolhapur.

Smilax zeylanica Linn. Common. Katyayani, Panhala, Gaganbavada (5161-5165).

Urginea indica (Roxb.) Kunth. Common in pasture lands of Kolhapur, Kagal (5212-5215).

PONTEDERIACEAE

Monochoria vaginalis (Burm. f.) Presl. ex Kunth. Along marshes of Vadanige lake near Kolhapur. Rare (5269).

Eichornia crassipes (Mart.) Solms. Common along Panchaganga river, Rankala Talao, puddles at Kolhapur (5272-5278).

ARECACEAE

Phoenix sylvestris Roxb. Along nadas at Kolhapur.

Caryota urens Linn. In forests of Panhala, Gaganbavada and Ambaghats.

PANDANACEAE

Pandanus odoratissimum Linn. f. Kagal stream near Kolhapur, Katyayani ; Radhanagari, along streams.

TYPHACEAE

Typha angustata Bory and Chaub. Common in marshes. Kolhapur, Kagal, Shiruli (5491-5498).

FLORA OF KOLHAPUR DISTRICT

ARACEAE

POTAMOJETONACEAE

Ariopsis peltata Nimmo. Generally epiphytic, sometimes in rock crevices; abundant at Panhala and Radhanagari (5541-5546).

Arisaema murrayi Hook. Katyayani, Panhala, Gaganbavada (5541-5546).

Colocasia esculenta (Linn.) Schott. Escape. In ponds and ditches. Kolhapur (5776).

Pothos scandens Linn. Gohlna forests of Radhanagari (4561).

NAJADACEAE

Najas graminea Del. Common in ponds and lakes. Kolhapur, Kagal (5825).

LEMNACEAE

ACKNOWLEDGEMENTS

Lemna paucicostata Hegalmair. In stagnant waters and ponds. Kolhapur.

Spirodella polyrrhiza (Linn.) Schleid. Kolhapur.

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